Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A system for separating particulate solids from a contaminated gas stream, said system comprising:

a separator vessel having a main contaminated gas inlet, a solids outlet and a first main clean gas outlet and a second main clean gas outlet; and

a power recovery unit having a unit inlet and a unit outlet, said unit inlet being in downstream communication with said first main clean gas outlet and said unit outlet being in downstream communication with said second main clean gas outlet.

Claim 2 (original): The system of claim 1 wherein said main contaminated gas inlet is in communication with a catalyst regeneration vessel.

Claim 3 (original): The system of claim 2 wherein said catalyst regeneration vessel has two cyclones in series in communication with said main contaminated gas inlet.

Claim 4 (original): The system of claim 1 wherein a bypass conduit communicates said second main clean gas outlet with said unit outlet and said bypass conduit has an inner wall with a refractory lining.

Claim 5 (original): The system of claim 1 wherein the solids outlet and the first main clean gas outlet or the second main clean gas outlet extend through the same nozzle of the separator vessel.

Claim 6 (currently amended): A ~~vessel~~ system for separating particulate solids from a contaminated gas stream, said ~~vessel~~ system comprising:

a vessel including:

a main contaminated gas inlet to said vessel;

a plurality of cyclones, each cyclone including a cyclone contaminated gas inlet in communication with said main contaminated gas inlet, a cyclone clean gas outlet and a cyclone solids outlet;

a tube sheet within said vessel surrounding at least some of said plurality of cyclones;

a main solids outlet extending from said vessel, said main solids outlet being in communication with said cyclone solids outlet; and

~~at least two~~ a first main clean gas outlet and a second main clean gas outlet ~~outlets~~ defined by said vessel, ~~at least one of said main clean gas outlets defined by said vessel below said tube sheet~~, said first main clean gas outlet being in communication with an inlet to a power recovery device and said second main clean gas outlet being out of communication with said power recovery device.

Claim 7 (currently amended): The ~~vessel~~ system of claim 6 including an additional tube sheet.

Claim 8 (currently amended): The ~~vessel~~ system of claim 7 wherein said cyclones comprise a body having a closed bottom end and a top end, the body defining said cyclone contaminated gas inlet at said top end, the feed gas inlet extending above the tube sheet, the cyclone body further defining a sidewall with discharge openings located between the tube sheet and the additional tube sheet for discharging particulate solids and a minor amount of an underflow gas stream.

Claim 9 (currently amended): The ~~vessel~~ system of claim 8 further including a swirl vane to induce centripetal acceleration of the contaminated gas stream.

Claim 10 (currently amended): The ~~vessel~~ system of claim 8 further including a cyclone gas outlet tube defining a clean gas inlet end located within the cyclone body for receiving a clean gas stream and further defining a cyclone clean gas outlet extending through the closed bottom end of the cyclone body and the additional tube sheet.

Claim 11 (currently amended): The ~~vessel~~ system of claim 6 wherein ~~a first main clean gas outlet is in communication with an inlet to a power recovery device and a second main clean gas outlet is in communication with a conduit that bypasses said power recovery device~~ at least one of said first and second main clean gas outlets are defined by said vessel below said tube sheet.

Claim 12 (currently amended): The ~~vessel~~ system of claim 6 wherein the solids outlet and the first main clean gas outlet or the second main clean gas outlet are disposed in the same nozzle of the separator vessel.

Claim 13 (original): A system for separating particulate solids from a contaminated gas stream, said system comprising:

a vessel including a main contaminated gas inlet to said vessel, a plurality of cyclones, each cyclone including a cyclone contaminated gas inlet in communication with said main contaminated gas inlet, a cyclone clean gas outlet and a cyclone solids outlet, a tube sheet within said vessel surrounding at least some of said plurality of cyclones, a main solids outlet from said vessel, said main solids outlet being in communication with said cyclone solids outlet, and a first main clean gas outlet and a second main clean gas outlet from said vessel;

a power recovery device in communication with said first main clean gas outlet; and

a bypass conduit in communication with said second main clean gas outlet that bypasses said power recovery device.

Claim 14 (original): The system of claim 13 wherein said bypass conduit in communication with said second main clean gas outlet includes a refractory lining on an inner wall thereof.

Claim 15 (original): The system of claim 13 wherein an outlet conduit from said power recovery device is in communication with said bypass conduit.

Claim 16 (original): The system of claim 13 wherein said main contaminated gas inlet is in communication with a flue gas outlet of a catalyst regeneration vessel.

Claim 17 (original): The system of claim 13 wherein said catalyst regeneration vessel has two cyclones in series in communication with said main contaminated gas inlet.

Claim 18 (currently amended): A process for separating particulate solids from a contaminated gas stream and recovering power from said contaminated gas stream comprising:

delivering said contaminated gas stream to a separator vessel;

separating particulate solids from said contaminated gas stream in said separator vessel;

withdrawing particulate solids from said separator vessel;

transporting a first clean gas stream from a first main clean gas outlet of said separator vessel to a power recovery unit;

recovering mechanical power from said first clean gas stream in said power recovery unit;

withdrawing said first clean gas stream from said power recovery unit; and

intermittently mixing a second clean gas stream from a second main clean gas outlet of said separator vessel with said first clean gas stream withdrawn from said power recovery unit.

Claim 19 (original): The process of claim 18 wherein said contaminated gas stream is obtained from a catalyst regeneration vessel.